

CLAIMS

1. A composition comprising:

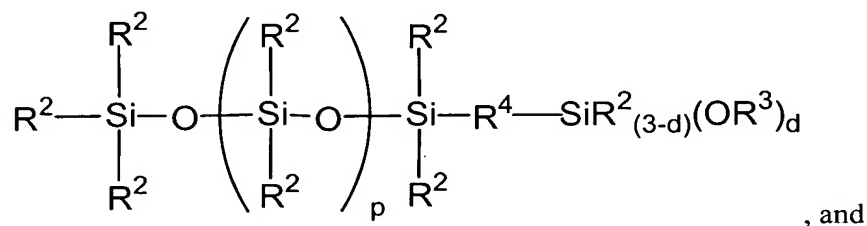
(A) a silicone oil, and

(B) a heat conductive filler,

with the provisos that component (A) is selected from the group consisting of silicone oils described by a general formula (A₁); silicone oils described by a general formula (A₂); silicone oils described by a general formula (A₃); mixtures of at least two of formulae (A₁), (A₂), and (A₃); and a hydrosilylation reaction mixtures of formula (A₁) and formula (A₃), where

formula (A₁) is $[R^1_a R^2_{(3-a)} SiO(R^1_b R^2_{(2-b)} SiO)_m (R^2_2 SiO)_n]_c SiR^2_{[4-(c+d)]} (OR^3)_a$,

formula (A₂) is



formula (A₃) is $[H_e R^2_{(3-e)} SiO(R^2_2 SiO)_n]_e SiR^2_{[4-(c+d)]} (OR^3)_d$, where

all instances of R¹ are identical or different monovalent hydrocarbon groups with aliphatically unsaturated bonds,

all instances of R² are identical or different monovalent hydrocarbon groups that do not have aliphatically unsaturated bonds,

R³ stands for alkyl, alkoxyalkyl, alkenyl, or acyl,

“a” is an integer of 0 to 3,

“b” is 1 or 2,

“c” is an integer of 1 to 3,

“d” is an integer of 1 to 3,

“c+d” is an integer of 2 to 4,

“m” is an integer of 0 or greater,

“n” is an integer of 0 or greater,

with the proviso that “m” is 1 or greater when “a” is 0,

R⁴ is an oxygen atom or divalent hydrocarbon group,

“p” is an integer of 5 or greater, and

“e” is an integer of 1 to 3, and
component (B) is surface treated with component (A).

2. The composition of claim 1, where component (B) is an alumina powder.
3. The composition of claim 1, where component (B) is selected from component (B₁) or component (B₂), where
(B₁) is a quasi-spherical alumina powder with an average particle size of 0.1 to 20 μm ;
(B₂) is a mixture of (B₂₁) and (B₂₂), where
(B₂₁) is a quasi-spherical alumina powder with an average particle size of greater than 5 to 50 μm , and
(B₂₂) is a quasi-spherical or irregular-shaped alumina powder with an average particle size of 0.1 to 5 μm .
4. The composition of claim 3, where component (B₂) is 30 to 90 wt% of component (B₂₁) and 10 to 70 wt% of component (B₂₂).
5. The composition of claim 1, where content of component (B) is 500 to 3,500 parts by weight per 100, parts by weight of component (A).
6. The composition of claim 1, where component (A) is a silicone oil selected from the group consisting of formula (A₁) and formula (A₃), and the composition further comprises (C) a component increasing the viscosity of component (A) via a hydrosilylation reaction, with the proviso that component (C) does not contain silicone oils corresponding to component (A).
7. Use of the composition of any of claims 1 to 6 to provide heat dissipation for an electronic component.